

WHAT IS CLAIMED IS:

1. A method for managing in a mobile subscriber the traffic flow of a communication connection during a cell reselection, the method comprising:
 - communicating via a communication connection with a first cell;
 - 5 monitoring communication conditions, while communicating with the first cell;
 - determining an approximate time when conditions associated with the flow of communication via the communication connection with the first cell is consistent with transferring the flow of communication to a communication connection with a second
 - 10 cell;
 - establishing by the mobile subscriber a communication connection with the second cell, while maintaining the communication connection with the first cell;
 - routing the flow of the communication from the communication connection with the first cell to the communication connection with the second cell; and
 - 15 releasing by the mobile subscriber the communication connection with the first cell, proximate the time that the flow of communication is routed from the communication connection with the first cell to the communication connection with the second cell.
- 20 2. A method in accordance with claim 1 wherein the communication connections with each of the first cell and the second cell are packet data communication connections.
3. A method in accordance with claim 2 wherein the packet data communication
- 25 connections use a communication protocol conforming to at least one of a general packet radio service (GPRS) standard and an enhanced data global evolution (EDGE) standard.

4. A method in accordance with claim 2 wherein the at least some of the packets of data communicated over the packet data communication connection include packetized voice data.

5 5. A method in accordance with claim 4 wherein the voice data is communicated as part of a push to talk (PTT) call session.

6. A method in accordance with claim 4 wherein the voice data is communicated as part of a voice over internet protocol (VoIP) call session.

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7. A method in accordance with claim 2 wherein the packet data communication connections with each of the first cell and the second cell are routed to a packet data network via a combining server.

15 8. A method in accordance with claim 1 wherein the communication connection with each of the first cell and the second cell support communication during one or more of a plurality of designated time slots.

9. A method in accordance with claim 8 wherein the communication connection
20 with the second cell is established during time slots, which are not used as part of the communication connection with the first cell.

10. A method in accordance with claim 8 wherein prior to establishing a communication connection with a second cell, reducing the number of time slots used
25 for the communication connection with the first cell.

11. A method in accordance with claim 8 wherein communicating via a communication connection with a first cell includes communicating via a communication connection with a first cell using a full rate mode.

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12. A method in accordance with claim 11 wherein prior to establishing a communication connection with a second cell, switching the mode used for the communication connection with the first cell to a half rate mode.

5 13. A method in accordance with claim 8 wherein establishing a communication connection with the second cell includes using one or more time slots which do not overlap in time with the time slots used in the first cell.

10 14. A method in accordance with claim 13 wherein, when communicating with a first cell and a second cell in adjacent time slots, the communication to the cell with the larger timing advance precedes the communication to the cell with the shorter timing advance to accommodate the timing differential between the start times of the time slots used with the first cell and the second cell.

15 15. A method in accordance with claim 1 wherein the point in time that the flow of communication from the communication connection with the first cell to the communication connection with the second cell is scheduled to occur at a predetermined time, which occurs after the communication connection with the second cell is established.

20 16. A method in accordance with claim 1 wherein each of the communication connection with the first cell and the communication connection with the second cell is associated with a routing address.

25 17. A method in accordance with claim 16 wherein the routing address is an internet protocol address.

30 18. A method in accordance with claim 16 wherein each of the communication connection with the first cell and the communication connection with the second cell is associated with a different address.

19. A method in accordance with claim 1 wherein monitoring communication conditions includes measuring the quality of signals received from a serving cell including the first cell, and measuring the quality of the signals received from one or
5 more neighboring cells including the second cell.

20. A method in accordance with claim 19 wherein determining a time when conditions are consistent with executing a handover includes comparing at least some of the signal quality measurements of the signals received from the serving cell with
10 at least one of a predetermined threshold and one or more of the signal quality measurements of the signals received from the one or more neighboring cells.

21. A method in accordance with claim 19 wherein at least some of the signal quality measurements includes a received signal strength indicator (RSSI).
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22. A method in accordance with claim 1 wherein the system associated with the first cell is synchronized with the system associated with the second cell.

23. A method in accordance with claim 1 wherein establishing a communication
20 connection with the second cell includes receiving authorization from the network for establishing a second communication connection.

24. A communication controller for use in a mobile subscriber comprising:
a reselection controller;
25 interface circuitry, coupled to the reselection controller, for establishing a communication connection with one or more cells; and
a cell reselection predictor coupled to the reselection controller;
wherein the reselection controller is adapted for establishing a communication connection with a second cell, prior to releasing the communication connection with
30 the first cell, in response to the cell reselection predictor predicting a reselection.

25. A communication controller in accordance with claim 24 wherein the interface
circuitry includes a transceiver having one or more control inputs, and wherein the
reselection controller is adapted to adjust the frequency and the timing of the
5 transceiver via the one or more control signals during respective time slots associated
with each of the established and non-released communication connections for at least
the first cell and the second cell.

26. A communication controller in accordance with claim 24 wherein the interface
10 circuitry includes a pair of transceivers, where at least one of the transceivers is
adapted for facilitating a communication connection with the first cell, and where at
least another one of the transceivers is adapted for facilitating a communication
connection with the second cell.

15 27. A communication controller in accordance with claim 24 wherein the
communication connection is a packet data communication connection.

28. A communication controller in accordance with claim 24 wherein the
communication connection includes voice data communicated as part of a push to talk
20 (PTT) call session.

29. A communication controller in accordance with claim 24 wherein the
communication connection includes voice data communicated as part of a voice over
internet protocol (VoIP) call session.

25 30. A communication controller in accordance with claim 24 wherein the cell
reselection predictor has an input for receiving one or more of signal quality
measurements and reselection criteria for one or more signals received from at least
one of a serving cell and one or more neighboring cells.

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31. A communication controller in accordance with claim 24 incorporated as part of a mobile communication device.

32. A communication controller in accordance with claim 31 wherein the mobile
5 communication device is a cellular telephone.